CLAIMS

1. A telecommunications system for providing a facility for communicating internet packets to and/or from a mobile user equipment, payload data of the internet packets comprising a plurality of different types of data, the system comprising a packet radio network which includes a gateway support node, a serving support node and a radio network controller,

the gateway support node being operable to provide an interface for communicating the internet packets between the user equipment and the packet data network,

the serving support node being operable to control communication of the internet packets between the gateway support node and the mobile user equipment using a radio network controller, the radio network controller being operable to provide radio access bearers for communicating the internet packets to and from the user equipment, wherein

the gateway support node in combination with the serving support node are operable in response to context application request data from the mobile user equipment to establish a virtual communications channel between the gateway support node and the mobile user equipment via the serving support node, the context application request data representing a request for the virtual communications channel for communicating the internet packets containing the different types of data, the context application request data specifying a main set of quality of service parameters and including at least one other data field representing a request for a different set of quality of service parameters, each set of quality of service parameters being provided for one of the different types of data in the internet packet, the virtual communications channel including a bearer for communicating the internet packets between the gateway support node and the serving support node and a plurality of radio access bearers, each of the radio access bearers being provided for one of the different types of payload data of the internet packets, each radio access bearer providing one of the main and other set of quality of service parameters for the different data types specified by the context application request data.

2. A telecommunications system as claimed in Claim 1, wherein the serving support node is operable in response to the virtual communications channel being established

to communicate radio access request data in accordance with a radio access network application part protocol to the radio network controller, and the radio network controller is operable in combination with a radio resource control layer to establish using a medium access control layer one of the radio access bearers for each of the plurality of quality of service parameters specified for the different data type.

3. A telecommunications system as claimed in Claim 2, wherein the radio resource control layer is operable

to establish the radio access bearers as a main radio access bearer in accordance with the main quality of service parameters in the medium access control layer, and

to establish the radio access bearer for each of the different data types as a sub flow within the main radio access bearer in the medium access control layer.

4. A telecommunications system as claimed in any preceding Claim, wherein the payload data of the internet packets includes a frame of data formed from an adaptive multi-rate speech codec, the data frame providing the plurality of the different types of data.

5. A telecommunications system as claimed in any preceding Claims, wherein the mobile user equipment is operable to communicate the context application request data to the gateway support node in accordance with a Packet Data Protocol context activation procedure.

6. A method of communicating internet packet data to and/or from a mobile user equipment via a packet radio network, payload data of each internet packet comprising a plurality of different types of data, the packet radio network including a gateway support node, a serving support node and a radio network controller the method comprising

using the serving support node of the packet radio network to control communication of the internet packets between the gateway support node and the mobile user equipment using the radio network controller, the radio network controller being operable to provide radio access bearers for communicating the internet packets to and from the user equipment,

communicating context application request data to the gateway support node, the context request data representing a request for a virtual communications channel for communicating the internet packets containing the different types of data via the packet radio network, the context application request data including a data field specifying a main set of quality of service parameters and including at least one other data field representing a request for a different set of quality of service parameters, each of the sets of quality of service parameters being provided for one of the different types of data in the internet packets, and

establishing the virtual communications channel between the gateway support node and the user equipment in response to the context application request data for communicating the internet packet data,

including establishing a plurality of radio access bearer in accordance with each of the sets of the quality of service parameters, each radio access bearer being provided for communicating one of the plurality of different types of payload data of the internet data packets.

7. A method as claimed in Claim 6, the establishing the virtual channel comprises

communicating radio access request data in accordance with a radio access network application part protocol to the radio network controller, and

using a medium access control layer of the radio network controller to establish the radio access bearer for each of the plurality of quality of service parameters for one of the different data types.

8. A method as claimed in Claim 7, wherein the using the medium access control layer comprises

establishing a main radio access bearer in accordance with the main quality of service parameters in the medium access control layer, and

establishing the radio access bearer for each of the different data types as a sub-flow within the main radio access bearer in the medium access control layer.

9. A method as claimed in Claim 6, 7 or 8, wherein the payload data of the internet packets includes a frame of data formed from an adaptive multi-rate speech coded, the data frame providing the plurality of the different types of data.

10. A method as claimed in any of Claims 6 to 9, wherein the context application request data is communicated in accordance with a Packet Data Protocol context activation procedure.

11. A serving support node of a packet radio network for communicating internet packets to and/or from a mobile user equipment, the internet packets including a header and payload data, wherein the payload data includes a plurality of different types of data, the serving support node comprising

an internet protocol communications layer and

a user data tunnelling layer operable to provide a virtual communications channel for communicating user data between the mobile user equipment and a gateway support node of the packet radio network, wherein the serving support node is operable in combination with the gateway support node to response to context application request data from the mobile user equipment

to establish the virtual communications channel between the gateway support node and the user equipment via the serving support node for communicating the internet packets, and

in response to the context application request data including a data field representing main set of quality of service parameters and at least one other data field representing a request for a different set of quality of service parameters, each set of quality of service parameters being required for one of the different types of data in the internet packets,

to establish a plurality of radio access bearers each in accordance with one of the sets of the quality of service parameters, each radio access bearer being provided for one of the different types of payload data of the internet packets.

12. A serving support node as claimed in Claim 11, the serving support node comprising

a radio access network application part protocol layer, wherein the serving support node is operable in response to the virtual channel being established through the user data tunnelling layer,

to communicate radio access request data using the radio access network application protocol layer to a radio network controller to establish using a medium access control layer of the radio network controller a radio access bearer for each of the different types of data in accordance with a respective set of quality of service parameters.

13. A radio network controller of a packet radio network for communicating internet packets between a serving support node and a mobile communications user equipment, payload data of each of the internet packets comprising a plurality of different types of data, the radio network controller comprising

a radio resource layer for controlling radio resources for communicating the internet packets,

a radio link control layer for controlling a medium access control layer to provide radio access bearers for communicating the internet packets via a radio access interface to the mobile user equipment, the radio link control layer providing the radio resources controlled by the radio resource layer, wherein the radio resource layer is responsive to a radio access request data using a radio access network application protocol layer to control the radio link control layer to establish using the medium access control layer a main radio access bearer for one of the different types of data in accordance with a main set of quality of service parameters, and

to establish a radio access barer for each of the different data types as a sub-flow within the main radio access bearer in the medium access control layer.

14. A mobile user equipment for communicating internet packets, payload data of each of the internet packets data comprising a plurality of different types of data, the user equipment being operable to communicate context application request data to a serving support node of a packet radio network, the context request data

representing a request for a virtual communications channel for communicating the internet data packets containing the different types of data, wherein the request data includes a data field specifying a main set of quality of service parameters and at least one other data field representing a request for at least one other radio access bearer providing a different quality of service parameters, each of the radio access bearers being provided for one of the different types of data in the payload of the internet packets.

15. A computer program providing computer executable instructions, which when loaded on to a data processor configures the data processor to perform a method for communicating internet packets to and/or from a mobile user equipment via a packet radio network, payload data of each of the internet packets comprising a plurality of different types of data, the packet radio network including a gateway support node, a serving support node and a radio network controller the method comprising

controlling communication of the internet packets between the gateway support node and the mobile user equipment using the radio network controller, the radio network controller being operable to provide radio access bearers for communicating the internet packets to and from the user equipment,

communicating context application request data to the gateway support node, the context application request data representing a request for a virtual communications channel for communicating the internet packets containing the different types of data between the gateway support node and the mobile user equipment, the context application request data including a data field specifying a main set of quality of service parameters and at least one other data field representing a request for a respective set of quality of service parameters, each of the sets of quality of service parameters being provided for one of the different types of data in the internet packets, and

establishing the virtual communications channel in response to the context application request data, including establishing a radio access bearer for each of the sets of quality of service parameters for communicating the different types of payload data in the internet packets.

16. A computer program as claimed in Claim 15 embodied on a computer readable medium.

17. An apparatus for communicating internet packet data to and/or from a mobile user equipment via a gateway support node, the internet packet data carrying a plurality of different types of data, the apparatus comprising

means for communicating the data packets between to the user equipment and the gateway support node,

means for controlling communication of the data packets between the mobile user equipment using a radio network controller, the radio network controller being operable to provide radio access bearers for communicating the internet data packets to and from the user equipment,

means for communicating context application request data to the gateway support node, the context application request data representing a request for a virtual communications channel for communicating the data packets containing the different types of data, the context application request data including a data field specifying a main set of quality of service parameters and at least one other data field representing a request for a different set of quality of service parameters, each of the sets of quality of service parameters being provided for one of the different types of data in the data packet, and

means for establishing the virtual communications channel between the gateway support node and the mobile user equipment in response to the context application request data,

including establishing a radio access bearer in accordance with each of the sets of quality of service parameters for communicating the different data types.

18. A telecommunications system, a gateway support node, a serving support node, a radio network controller or a mobile user equipment substantially as herein before described with reference to the accompanying drawings.

19. A method for communicating internet packet data substantially as herein before described with reference to the accompanying drawings.